

CLAIMS

What is claimed is:

1. A device for use with an ultrasonic transducer to lyse
5 components of a fluid sample, the device comprising:
 - a) a cartridge having:
 - i) a lysing chamber;
 - ii) an inlet port in fluid communication with the
10 lysing chamber; and
 - iii) an outlet port for exit of the sample from the
15 lysing chamber, wherein the inlet and outlet
ports are positioned to permit flow of the sample
through the lysing chamber, and wherein the
chamber is defined by at least one wall having an
external surface for contacting the transducer;
 - b) at least one membrane or filter positioned in the
20 lysing chamber for capturing the sample components to
be lysed as the sample flows through the chamber; and
 - c) beads disposed in the lysing chamber for rupturing the
sample components.
2. The device of claim 1, wherein the wall comprises a plastic
film having a thickness in the range of 0.01 to 0.5 mm.
- 25 3. A device for use with an ultrasonic transducer to lyse
components of a fluid sample, the device comprising:
 - a) a cartridge having:
 - i) a lysing chamber;
 - ii) an inlet port in fluid communication with the
30 lysing chamber; and
 - iii) an outlet port for exit of the sample from the
lysing chamber, wherein the inlet and outlet

ports are positioned to permit flow of the sample through the lysing chamber; and

- b) at least one solid phase in the lysing chamber for capturing the sample components to be lysed as the sample flows through the chamber;

wherein the lysing chamber is defined by at least one wall having an external surface for contacting the transducer, and wherein the wall comprises a plastic film having a thickness in the range of 0.01 to 0.5 mm.

4. The device of claim 1, wherein the solid phase comprises a membrane or filter for capturing the sample components, and the device further comprises beads in the lysing chamber for rupturing the sample components.